

# SEQUENCE LISTING



<110> Kutuyavin, Igor V.  
 Milesi, David  
 Hoekstra, Merl  
 Epoch Biosciences, Inc.

<120> Abasic Site Endonuclease Assay

<130> 17682A-007910US

<140> US 10/645,353  
 <141> 2003-08-20

<150> US 60/405,642  
 <151> 2002-08-21

<160> 17

<170> PatentIn Ver. 2.1

<210> 1  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:hairpin  
 substrate structure simulating probe-target  
 nucleic acid-enhancer complex

<220>  
 <221> modified\_base  
 <222> (47)  
 <223> n = c modified by 3' tail  
 2-(6-oxy-2-{2-[5-hydroxy-8-(oxy-methoxy-phosphoryloxy)-  
 octylcarbamoyl]-ethyl}-3-oxo-3H-xanthen-9-yl)-benzoate  
 (structure #2)

<400> 1  
 gccacattgg aagccaatgt ggcgggcaag gaccgaaggt ccttgcn 47

<210> 2  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:flexible  
 polypeptide chain probe-enhancer linker

<400> 2  
 Gly Ser Ser Ser Ser  
 1 5

<210> 3  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:target  
 oligonucleotide  
  
 <400> 3  
 aatgtggcgg gcaaggaccg agtc 24  
  
 <210> 4  
 <211> 11  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:11-mer probe  
 complementary to target oligonucleotide  
  
 <220>  
 <221> modified\_base  
 <222> (1)  
 <223> n = a modified by 5' conjugated quencher  
 phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-  
 phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-  
 3-yl ester methyl ester (structure #15)  
  
 <220>  
 <221> modified\_base  
 <222> (11)  
 <223> n = t modified by 3' tail of fluorescein (FAM) and linker 4,5-  
 dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-  
 phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-  
 oxo-3H-xanthen-9-yl)-benzoate (structure #8)  
  
 <400> 4  
 nctcggtcct n 11  
  
 <210> 5  
 <211> 11  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:enhancer  
 oligonucleotide for 1 base gap between target  
 oligonucleotide and duplexes of probe and enhancer  
  
 <400> 5  
 cccgccacat t 11  
  
 <210> 6  
 <211> 11  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence:enhancer  
 oligonucleotide for 0 base gap between target  
 oligonucleotide and duplexes of probe and enhancer

<400> 6  
 gcccgccaca t 11

<210> 7  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:enhancer  
 oligonucleotide for 2 base gap between target  
 oligonucleotide and duplexes of probe and enhancer

<400> 7  
 ccgccacatt 10

<210> 8  
 <211> 41  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:41-mer fully  
 matched DNA target sequence

<400> 8  
 agtcacagtc ggtgccaatg tggcgggcaa ggaccgagtc g 41

<210> 9  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:enhancer  
 oligonucleotide

<400> 9  
 gccacattgg caccgactgt ga 22

<210> 10  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:14-mer  
 oligonucleotide probe

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> n = a modified by 5' conjugated quencher  
 phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-  
 phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-  
 3-yl ester methyl ester (structure #15)

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> n = t modified by 3' tail of fluorescein (FAM) and linker 4,5-dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-oxo-3H-xanthen-9-yl)-benzoate (structure #8)

<400> 10  
 nctcggctcct tgcn 14

<210> 11  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:10-mer oligonucleotide probe

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> n = a modified by 5' conjugated quencher phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-3-yl ester methyl ester (structure #15)

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> n = t modified by 3' tail of fluorescein (FAM) and linker 4,5-dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-oxo-3H-xanthen-9-yl)-benzoate (structure #8)

<400> 11  
 ngtccttgcn 10

<210> 12  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:fragment of target sequence around single nucleotide polymorphism in human genomic DNA

<400> 12  
 aaagagacac ggacayatca atccatc 27

<210> 13  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:asymmetric PCR  
 amplification forward primer

<400> 13  
 caaactttgt ccttggtcta 20

<210> 14  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:asymmetric PCR  
 amplification reverse primer

<400> 14  
 ttcttttacc actccccctt 20

<210> 15  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:complementary  
 target oligodeoxyribonucleotide (ODN)

<400> 15  
 caaggaccga gtc 13

<210> 16  
 <211> 11  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial  
 Sequence:oligodeoxyribonucleotide (ODN) probe

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> n = a modified by 5' conjugated quencher  
 phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-  
 phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-  
 3-yl ester methyl ester (structure #15)

<220>  
 <221> modified\_base  
 <222> (11)  
 <223> n = t modified by 3' tail of fluorescein (FAM) and linker 4,5-  
 dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-  
 phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-  
 oxo-3H-xanthen-9-yl)-benzoate (structure #8)

<400> 16  
 nctcggtcct n 11

<210> 17  
<211> 11  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial  
Sequence:oligodeoxyribonucleotide (ODN) probe

<220>  
<221> modified\_base  
<222> (1)  
<223> n = a modified by 5' conjugated quencher  
phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-  
phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-  
3-yl ester methyl ester (structure #15)

<400> 17  
nctcggtcct t

11